CLAIMS

1. Planetary gear train having rotatably mounted on a planet carrier (18) planetary gears (8) which are in tooth contact with an internally toothed ring gear (14) and a sun gear (4), characterized in that

the ring gear (14) and the planetary gears (8) are conically designed, that the planetary gear axles (16) are retained in the planetary gear carrier (18) at an inclined angle (α),

that the planetary gears (8) are situated axially displaceably on the planetary gear axles (16) coordinated with them, and

that the position of the planetary gears (8) in the planetary train is adjustable by adjusting means for adjusting a backlash.

2. Planetary gear train according to claim 1, characterized in that the sun gear (4) has an external toothing (6) at least approximately clyindrical.

3. Planetary gear train according to claim 1 or 2, characterized in that the cone angle (β) of the tooth flanks of the planetary gears (8) is adapted to the inclined angle (α) of the planetary gear axles (16) so that the tooth flanks of the sun gear (4) and the tooth flanks of the planetary gears (8) meet over the whole tooth width.

4. Planetary gear train according to claim 3, characterized in that the inclined angle (α) of the planetary gear axles (16) corresponds at least approximately to the cone angle (β) of the tooth flanks of the planetary gears (8).

5. Planetary gear train according to claim 3, characterized in that the inclined angle (α) of the planetary gear axles (16) corresponds at least approximately to half the cone angle of the tooth flanks of the ring gear (14).

6. Planetary gear train according to any one of the preceding claims, characterized in that the planet carrier (18) is rotatably mounted in the ring gear (14).

7. Planetary gear train according to claim 6, characterized in that two bearings (24) are provided on both sides of the toothing plane of the planetary gears (8).

8. Planetary gear train according to claim 6 or 7, characterized in that the bearings (24) between the ring gear (14) and the planet carrier (18) are designed as slanted bearings (24) in O-arrangement.

9. Planetary gear train according to any one of the preceding claims, characterized in that the planet carrier (18) is connected with one output shaft of the train.

10. Planetary gear train according to any one of the preceding claims, characterized in that the sun gear (4) is fastened on an input shaft (2) of a prime mover.

11. Planetary gear train according to any one of the preceding claims, characterized in that the adjusting means are operatively located between the planetary gear carrier (18) and the planetary gears (8).

12. Planetary gear train according to any one of the preceding claims, characterized in that the adjusting means between planetary gear carrier (18) and ring gear (14) comprise operative fitting discs (32) and/or spacer discs (34) which determine their axial position relative to each other.

13. Planetary gear train according to claim 11, characterized in that the adjusting means operatively situated between planetary gear carrier (18) and planetary gears (8) are designed as spacer pieces (58) located coaxially relative tot he planetary gear axles (16).

14. Planetary gear train according to claim 11, characterized in that the adjusting means operatively situated between planetary gear carrier (18) and planetary gears (8) are designed as adjusting springs (62) coaxial with the planetary axles (16).

15. Planetary gear train according to claim 11, characterized in that the adjusting means operatively situated between planetary gear carrier (18) and planetary gears (8) are designed as continuously feedable set screw (64) inserted in the planetary gear carrier (18).

16. Planetary gear train according to any one of the preceding claims, characterized in that the planetary gears (8) and/or the ring gear (14) have an incision (46, 48).

17. Planetary gear train according to claim 16, characterized in that the incision (46) made in the planetary gears (8) is designed revolving with rotational symmetry.

18. Planetary gear train according to claim 16, characterized in that several peripherally spaced incisions (46) are located in the planetary gears (8).

19. Planetary gear train according to any one of the preceding claims, characterized in that the reduction ratio of the train has a value which is less than or equal to twelve.